

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017641**Date Inspected:** 01-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Yu Dong Ping
Inspected CWI report: Yes No N/A
Electrode to specification: Yes No N/A
Qualified Welders: Yes No N/A
Approved Drawings: Yes No N/A

CWI Present: Yes No
Rod Oven in Use: Yes No N/A
Weld Procedures Followed: Yes No N/A
Verified Joint Fit-up: Yes No N/A
Approved WPS: Yes No N/A
Delayed / Cancelled: Yes No N/A

Bridge No: 34-0006**Component:** OBG/TOWER**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

BAY 11, OBG BIKE PATH (NWIT # 06819)

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15%, Ultrasonic Testing of approximately 10% and random Visual Testing (VT) of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector has generated MT and UT report for this date. The member(s) are identified as OBG components. The weld designations reviewed are as follows:

BK004A5-018-134, 135

BK004A1-018-008, 005 (GREEN TAG NO. 14334)

BAY 12 GREEN TAGGING (NWIT # 06825)

This QA inspector performed green tagging for the following components. The components are identified as OBG components and the weld designations reviewed are as follows.

SA3084A-1~4, 6~14, 16~21, 23, 25~29, 31, 32, 35 (GREEN TAG NO. 12459)

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This Quality Assurance (QA) Inspector observed the following work in progress:

BAY 11

BIKE PATH (HSR-9503)

During random in process inspection this QA inspector observed that ZPMC personnel performing heat straightening on the weld joints of deck plate to stringer plate of bike path. The QC monitoring HSR is identified Mr. Shao Hai Lang. The members are identified as OBG components and the weld designations reviewed are as follows.

BK004A-020

OBG BIKE PATH

FCAW welding of weld joint 002 located on BK004A3-017.

Welder is identified as 066746. ZPMC QC is identified as Mr. Shao Hai Lang.

The welding variables recorded by QC appeared to comply with WPS-B-P-2231-Tc-U4c-F.

FCAW welding of weld joint 005 located on BK004A5-017.

Welder is identified as 067138. ZPMC QC is identified as Mr. Shao Hai Lang.

The welding variables recorded by QC appeared to comply with WPS-B-P-2231-Tc-U4c-F.

OBG BIKE PATH BK005B-002

During random in process inspection this QA inspector observed that ZPMC personnel performing fit up of the stringer plate to deck plate of above mentioned bike path. The welder is identified as 057331. ZPMC QC is identified as Mr. Zhao Mao Mao. The welding variables recorded by QC appeared to comply with WPS-B-P 2112. The members are identified as OBG components.

During the Quality Assurance in process inspection of bike path BK004A-017, this Quality Assurance (QA) Inspector discovered the following issues:

Issue 1:

- The welding has been performed without use of runoff plates.
- The welds are Complete Joint Penetration (CJP) with steel backing joining the Bearing Plate (BKPL7A/B) and end plate (BKPL3A/B).
- The welds are identified as: BK004A5-017-005 and BK004A3-017-002.
- The member is located in bay 11.

Issue 2:

- Steel backing was not properly placed and held in intimate contact with the base metal.
- The gap between steel backing and side plate is observed approximately 4.5mm.
- The weld is Complete Joint Penetration (CJP) with steel backing joining the Bearing Plate (BKPL7B) and End Plate (BKPL3B) of bike path.

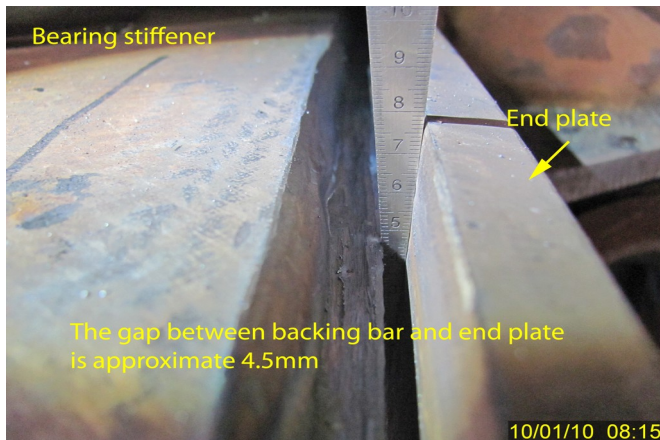
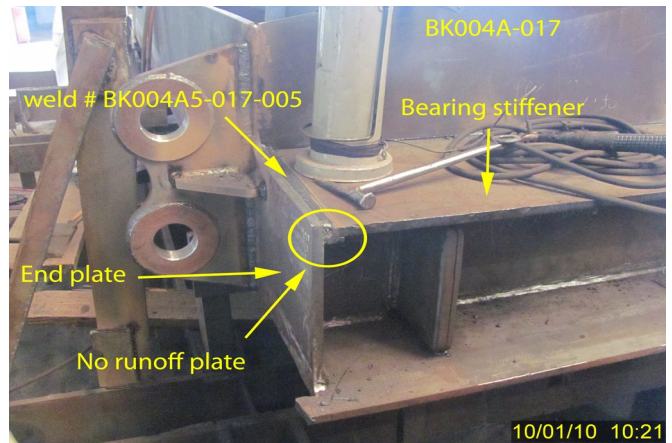
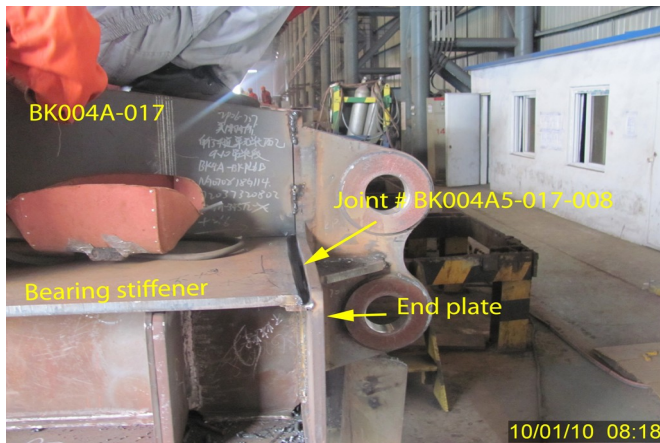
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- The weld is identified as: BK004A5-017-008.
- The member is located in bay 11.

This issue has an incident report. The attached photographs provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Umesh

Quality Assurance Inspector

Reviewed By: Carreon,Albert

QA Reviewer